

Date: September 6, 2011

To: Thomas J. Bonfield, City Manager
Through: Theodore L. Voorhees, Deputy City Manager
From: Marvin G. Williams, Public Works Director
Edward Venable, Engineering and Stormwater Manager
Paul Wiebke, Assistant Stormwater Manager
Dana P. Hornkohl, Civil Engineer, Stormwater Services Division
Subject: North Carolina Department of Transportation (NCDOT)
Municipal Agreement for University Drive Culvert Rerouting Project
(Agreement ID #2588)

Executive Summary

The Stormwater Services Division is managing a stormwater infrastructure project to reroute an existing drainage system on private property at 2512 and 2514 University Drive. The North Carolina Department of Transportation (NCDOT) would like to participate in the construction project in order to replace the portion of the drainage system immediately downstream of the system being rerouted by the City. It is necessary to enter into a municipal agreement to formalize the details and requirements for the NCDOT's participation in the construction of the drainage system.

Recommendation

The Administration recommends that the City Council authorize the City Manager to execute a municipal agreement with the NCDOT (Agreement ID #2588) for the University Drive Culvert Rerouting Project to participate in the construction of the drainage system.

Background

Scott Howell approached the City and the NCDOT in 2005 concerning the drainage system on his property at 2512 and 2514 University Drive (Nana's Restaurant and the Rockwood Building). The private drainage system extends from a regulated stream on the west side of the property, runs underneath the back parking lot then passes under the two buildings and the front parking lot, where it connects to the public system within NCDOT maintained University Drive right-of-way. A sinkhole had formed in the parking area in front of the Rockwood Building adjacent to the building sign. It was determined that a portion of the private system located on Mr. Howell's property was failing and deficient. Mr. Howell requested assistance from the City in repairing the system.

The City and Mr. Howell first entered into an agreement on August 16, 2006. The City agreed to assist Mr. Howell with "designing and building a replacement stormwater line" on his property. The City Manager awarded a contract to HDR Engineering, Inc. of the Carolinas on September 27, 2006 to begin work on the design of the drainage system rerouting in the vicinity of University Drive and Chapel Hill Boulevard. At the same time the City entered into discussions with NCDOT to participate in the project with the goal of replacing the portion of the system within NCDOT right-of-way. The City and Mr. Howell entered into a supplemental

agreement on August 15, 2008. This agreement flushed out the details of construction scheduling and phasing, cost sharing between Mr. Howell and the City, and the dedication of easements.

NCDOT has chosen to replace the existing twin 48-inch corrugated metal pipes (CMPs) underneath University Drive and participate in the City's overall project. The City has proposed a twin 5-foot by 5-foot box culvert to replace this system that would meet current City of Durham guidelines for development. The box culvert proposed by the City has a higher capacity and meets a higher design standard than NCDOT would require. NCDOT has agreed to contribute \$93,000.00 towards the construction of the new box culvert within NCDOT maintained University Drive. This amount represents the estimated cost to replace the twin 48-inch CMPs plus an additional contribution towards the construction of the box culvert.

In order for this project to be completed, NCDOT must approve the construction documents as the State right-of-way is affected. NCDOT gave preliminary approval of a pre-cast replacement culvert and construction plans were submitted to NCDOT for review. Upon closer review NCDOT staff determined they would not accept a pre-cast design due to grade changes and alignment angles for the replacement culvert. As a result the project required significant design changes which were not accounted for in the original contract with the consultant. City Council authorized the City Manager to amend the consultant's contract to complete design and construction documents. The contract amendment was executed on June 24, 2011. Revised construction documents are scheduled to be completed by the end of September 2011 and submitted to the City and NCDOT for review.

Issues and Analysis

The municipal agreement stipulates the terms under which the NCDOT will reimburse the City for construction of the box culvert within NCDOT right-of-way. The terms include stipulations on the scope of the project, the procurement of specialized services, planning and design, utilities, right-of-way, construction, construction subcontractor guidelines, funding, traffic, maintenance, and additional provisions.

Alternatives

City Council may choose to not approve the request. This will result in the City funding the entire cost of the project on private property and within NCDOT maintained University Drive.

City Council may choose not to proceed with the project. The City is not responsible for the failing infrastructure located on private property and within NCDOT maintained right-of-way. This alternative is not recommended since the City is trying to facilitate a solution through the discretionary private drainage assistance program.

Financial Impact

This municipal agreement will result in the City being reimbursed for \$93,000 for construction costs of a new box culvert within NCDOT maintained University Drive upon substantial completion and acceptance.

SDBE Summary

This item does not require review by the Equal Opportunity/Equity Assurance Department.

Attachments

Municipal Agreement between the NCDOT and the City of Durham (Agreement ID #2588)